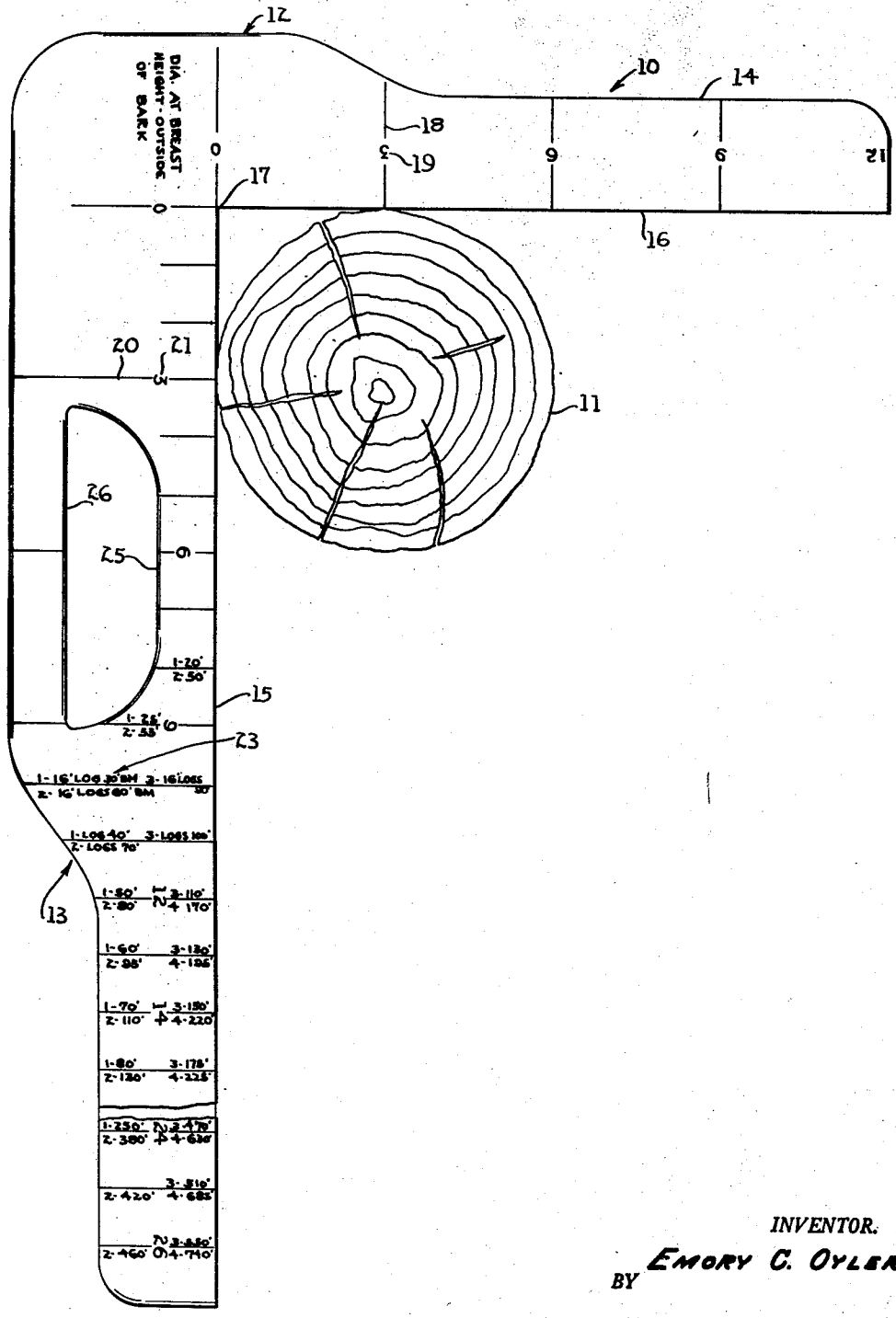
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DEVICE FOR ESTIMATING THE BOARD FOOT CONTENTS OF STANDING TREES

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DEVICE FOR ESTIMATING THE BOARD FOOT CONTENTS OF STANDING TREES

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1 Claim. (Cl. 33—112)

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This invention relates to a device for estimating the board foot contents of standing timber.

An object of this invention is to provide a board foot content-estimating device which is particularly adapted for use in the field with speed and facility to ascertain the yield of a standing tree.

Another object of this invention is to provide a device for estimating the board foot contents of standing timber which is compact and easily portable.

A further object of this invention is to provide a device for estimating the board foot contents of standing timber which is very simple in structure and cheap to manufacture.

The above and still further objects and advantages of the present invention will become apparent upon consideration of the following detailed description of the invention, when taken in conjunction with the accompanying drawings, wherein:

The figure is a top plan view, with parts broken away, of the estimating device of the present invention shown in position for measuring the breast height diameter of a standing tree, the tree being shown in section.

Standing trees are irregular objects, and accordingly, it is virtually impossible to find the exact content of trees without felling. To obviate this difficulty, volume tables based upon definite measurements of the tree have been computed. Practically all tables in general use for board foot determinations are designed to show yields of trees measured by the diameter at breast height outside bark, and the mechantable trunk length. The breast height standard for all trees is selected at four and one-half feet above the ground. In using the tables, it is necessary to estimate the length of mechandisable trunk and to measure the breast height diameter of the tree. Using the breast height diameter expressed in inches, and the usable trunk length in multiples of 16-foot sections, the board foot content of a particular species of tree can be readily ascertained.

Referring now with particularity to the drawing, there is shown the estimating device of the present invention, generally designated by the reference numeral **10**, in position for measuring the breast height diameter of a tree **11**. The device **10** includes a body **12** having two legs **13** and **14** disposed at right angles with respect to each other and connected together to form a square having straight edges **15** and **16** meeting at a reference point **17**.

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The leg **14** of the square is provided at spaced intervals along its length with transverse markings **18**, each of the markings being provided with suitable indicia **19** for measuring the breast height diameter of the standing tree **11**. Similarly, the leg **13** is provided with transverse markings **20** at spaced intervals along its length, each of the markings being provided with suitable indicia **21** for measuring the breast height diameter of the standing tree **11** in inch units. It is to be noted that the leg **13** is somewhat longer than the leg **14** and provides the diameter measurement for trees over twelve inches in diameter.

The leg **13** of the square is provided with further indicia contiguous to the diameter-indicating indicia **20** and **21** for indicating the board foot contents of a predetermined length of a tree having a breast height diameter equal to the diameter-indicating indicia adjacent thereto. As previously pointed out, the usable trunk length is expressed in multiples of 16-foot sections. The board foot content indicia, generally designated by the reference numeral **23** includes individual indicia for indicating the board foot contents of multiples of the predetermined length of the tree having a breast height diameter equal to the diameter-indicating indicia adjacent thereto. For example, if the breast height diameter of the tree to be estimated for board foot contents is ten inches, the indicia adjacent the line representing a diameter of ten inches is consulted, and it is quickly and readily ascertained that one 16-foot section will yield thirty board feet, two 16-foot sections will yield sixty board feet, and three 16-foot sections will yield ninety board feet. Suitable volume tables for providing indicia **23** contiguous to each of the diameter markings can be obtained for various species of trees from the United States Forest Service, Department of Agriculture, Washington, D. C.

The leg **13** of the body **12** is longitudinally cut away, as indicated by the reference numeral **25**, to form a hand grip **26**, facilitating the manual grasping of the estimator **10** for use in the field.

In estimating for board feet content, it is generally considered that the smallest tree worth measuring is one having a breast height diameter of approximately ten inches. The trees below this size yield very little lumber and obviously, the cost of converting them to lumber is usually higher than the value of their board foot content. The estimator obtains the two measurements of the tree, namely, the diameter, breast height outside the bark in inches. If the tree is lopsided, the estimator obtains an average diam-

eter. Also, the length of the trunk from a point approximately one foot from the ground to the place where utilization of log material will stop is obtained, the trunk length being computed in a number of 16-foot sections, better known as logs. It is seldom necessary to figure down to one-half log lengths, except in very short trees. In using the estimator **10**, it is merely necessary to look to the adjacent board foot indicating indicia **23** after obtaining the breast height diameter. Having previously ascertained the number of usable logs, the desired data is readily available to the estimator.

Although only one embodiment of the estimator of the present invention has been described, it is readily apparent that numerous modifications can be made without departing from the spirit of the invention as set forth in the appended claim.

What I claim is:

A device for estimating the board foot contents of a standing tree comprising a rigid body including two legs at right angles to each other with both legs being of substantial length for engagement of both legs, at locations intermediate their ends, against tree trunks of substantial diameter, with said intermediate portions of the legs engaging the trunk at points spaced approximately 90 degrees apart about the circumference of the trunk, each leg being provided with indicia spaced longitudinally thereof and arranged to denote, at the tree-engaging portions of the legs, the breast height diameter of the measured trunk, the indicia of each leg matching those of the other leg to insure the accurate placement of the legs against said trunk, one of said legs having additional indicia associated with the first named indicia and denoting the board feet contents of the trunk in multiples of predetermined log lengths to be cut from the tree, said legs having widened inner end portions extending to the juncture of the legs and one of said inner end portions having a longitudinal slot formed therein defining a hand grip for holding the legs in a trunk-engaging position.

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